HYUNDAI L&C CORPORATION
8F, Mirae asset Center 1, 26,
Eulji-ro 5-gil, Jung-gu, Seoul, Korea
Phone : 822-6364-7724
Fax: 822-6364-7709
E-Mail: gjlee1618@hyundailnc.com
http://www.hlcc.co.kr

LETTER OF WARRANTY

1. WARRANTY

1.1 HYUNDAI L&C Corporation(hereinafter "HLCC") produces exterior deco sheet foil, that is designated for the limitation of window profiles(hereinafter "the Product"). The Product specifications are attached as **Appendix A** hereto.
1.2 HLCC guarantees that Product shall be free of defects in material and shall retain its color stability and weather resistance, subject to the terms, limitation, proper processing and usage conditions specified in **Appendix A** hereto.
1.3 The color stability of the Product had been tested in accordance with DIN EN 20105-A02, DIN EN 20105-A03 and standard RAL-GZ716. HLCC guarantees that the color stability will not be lower than grade 3 on the gray scale.
1.4 This warranty specifically excludes the following:
This warranty shall not cover physical or cosmetic damage of the Product caused by resulting of mishandling, etc. In the event that the client executes any changes to the material or to the processes that may affect the coatings on the surface of the Product, the client will bear sole liability and HLCC will be free of its obligation under this warranty.

2. WARRANTY PERIOD

2.1 This warranty shall enter into force and effect (i) from the date which the Product is used for laminationor (ii) after six months following the date of shipment from HLCC's facilities; whichever occurs first.
2.2 This warranty is limited to the period specified in **Appendix B** hereto.

3. WARRANTY CONDITIONS

3.1 Following supply of the Product by HLCC, the lamination process by any third party is to be carried out in accordance with **Appendix A** and accepted technical practices.

HYUNDAI L&C CORPORATION
Name : J.Y SUNG
Title : Manager
J. Y. SUNG / GENERAL MANAGER
[AUTHORIZES SIGNATORY]

3.2 A warranty claim shall be considered valid only if the Limited Warranty Registration Card, attached as **Appendix C** hereto, is completed and signed by the original purchaser of the Product on the date of sale. This warranty shall only be valid once HLCC's invoice has been paid in full.
3.3 Any defect in the Product shall be brought to the attention of HLCC or its authorized representative for this purpose, in writing, by no later than 14 days after its detection. Any warranty claim referring to a defect in the Product shall include a full description as to the nature of the defect, the date of detection and a copy of the sales receipt.

4. SCOPE OF WARRANTY

4.1 This warranty shall only apply to defects of color stability and weather resistance in the Product, in which case HLCC undertakes, at its sole discretion, to (i) replace the Product; (ii) remove the defective Product and install a replacement Product; or (iii) reimburse the out of pocket expenses incurred in connection with the removal of the defective Product and installation of a replacement Product; provided that installing replacement Product under this article will not renew or extend the original warranty period.
4.2 Notwithstanding the foregoing, in any event, unless otherwise agreed to by HLCC in writing, HLCC shall not be liable and shall not bear any expense or cost related to the removal of the defective Product, the installation of replacement Product or shipping and delivery expenses related to the replacement Product. HLCC shall have no liability for any consequential or incidental damage, or to any other loss, damage, misuse, improper storage, neglecting of or misapplication of the Product, damage incurred by abnormal weather condition such as extreme cold or extreme heat and other atypical weather, any loss of profit or revenue incurred, or any other costs other than those specifically expressed herein.
4.3 EXCEPT AS SPECIFICALLY SET FORTH ABOVE, HLCC MAKES NO WARRANTY, EXPRESSED OR IMPLIED, INCLUDING THE WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. NO REPRESENTATIVE OF HLCC, OR ANY OF ITS AGENTS, DISTRIBUTORS OR DEALERS HAS ANY AUTHORITY TO ALTER IN ANY MANNER THE TERMS OF THIS WARRANTY AND HLCC IS NOT RESPONSIBLE FOR ANY UNDERTAKING, REPRESENTATION OR WARRANTY MADE BY ANY OTHER PERSON BEYOND THOSE EXPRESSLY SET FORTH IN THIS WARRANTY CERTIFICATE.
4.4 HLCC'S WARRANTY LIABILITY SHALL NOT EXCEED THE PURCHASE PRICE PAID BY ORIGINAL PURCHASER AND SHALL NOT BE EXTENDED TO ANYONE OTHER THAN ORIGINAL PURCHASER OF THE PRODUCT.

By : HYUNDAI L&C Corporation Ltd.

HYUNDAI L&C CORPORATION
Name : J.Y SUNG
Title : Manager
J. Y. SUNG / GENERAL MANAGER
[AUTHORIZES SIGNATORY]

Appendix A

1. Product specifications

NO.	ITEM		SPEC.	REMARK
1	Appearance	Defect Type	○ At a distance of 60cm, by the naked eyes under the proper light, shall observe the defects such as visible dots, dents, pimples, line, dirt infusion, and gloss irregularity.	
2	Product		○ Multi-layered film with acrylic top layer and PVC base-film. ○ Acrylic top layer has strong weathering resistance against UV ray ○ Special PVC base film & printing pigment improve HBU & stability	RAL-GZ 716
3	Weatherability		○ Meets the demands of RAL-GZ 716 Part II -a-3 ○ A Total Irradiation of above 20GJ with Grade 3 on the grey scale (DIN EN 20105-A03, DIN EN 20105-A02)	EN513 Method 1
4	Width		○ Norminal -0.0 ~ +5.0㎜	DIN EN ISO 2286-1
5	Thickness		○ Total Thickness : 200±20㎛ included primer (Acrylic Top Layer : above 50㎛)	DIN EN ISO 2286-3
6	Tensile strength	length-way width-way	○ Above 15N/㎟	DIN EN ISO 527-3
7	Shrinkage		○ Within ±1.0%(60℃, 10min)	DIN 53377
8	Emboss Stability		○ Gloss Change rate is Under 10% after Shrinkage Test ○ Extruding and wrapping is possible without any change of properties in the proper process conditions	DIN 53377
8-1	Temperature resistance		○ No visual change after 15min at 95℃ dry oven long term temperature stability <60℃. when the extruded section is being processed, welding is possible without affecting the properties of the film if it complies to the general rules of technology. the gloss level of the film surface will increase at the temperatures (up to 120) necessary for bending the sections.	
9	Unit Mass		○ 200±20g/㎡	DIN EN ISO 2286-2
10	Heat Build Up		○ Above class 3 according to standard climate 23/50	DIN EN ISO 291:2008-08
11	Surface Gloss		○ Standard±2.5(60° Gloss) ※ It may be different for each pattern.	DIN 67530
12	Scratch Resistance		○ Above HB(Load 200g, 45°); (Pencil Strength : B<HB<F<H)	ASTM D 3363
13	Chemical Resistance		○ Not resistant to organic solvents, including paint-thinners and varnish-removers	
14	Maintenance		○ Appropriate cleaning with standard household cleaning agents	

HYUNDAI L&C CORPORATION

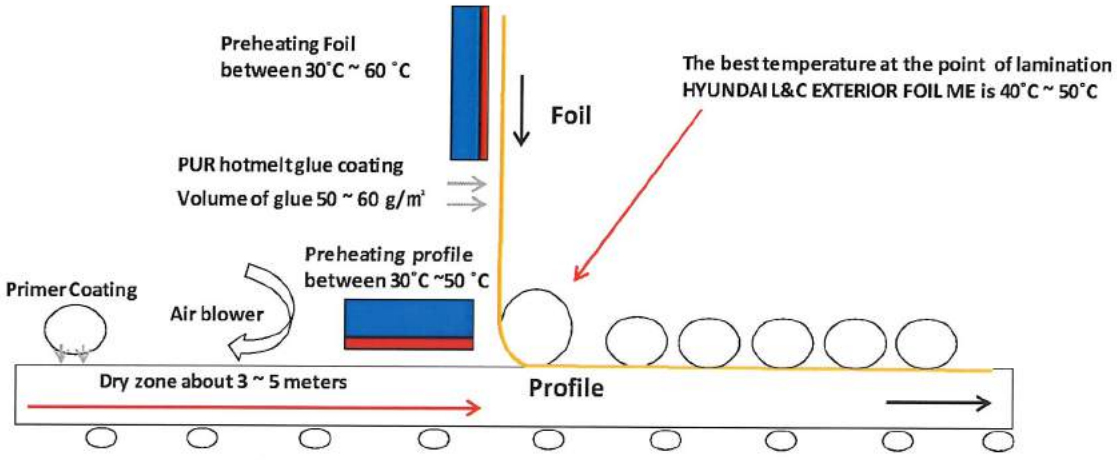
Name : J.Y SUNG

Title : DIRECTOR

J. Y. SUNG / GENERAL MANAGER

[AUTHORIZES SIGNATORY]

2. Lamination Process for PUR hotmelt glue



The lamination speed is related to the length of the drying zone and the installed drying machine. Our suggestion is a drying zone of between 3~5meters.

HYUNDAI L&C EXTERIOR FOIL ME/HE should be stored at a minimum of 18˚C for a minimum of 24 hours in advance lamination. Laminated profiles should be stored for minimum of 72 hours at a minimum of 18˚C and 50% humidity.

3. Adhesive & Primer

Company	Adhesive	Primer	Basis
Taka	TK-PU 1308.1	WPN Fluorescent	Pur
	TK-PU 1308.1	TKM 171 Fluorescent	Pur
	TK-PU 1308.1	WPN 10 Fluorescent	Pur
	TK-PU 1308.1	TK 171 Fluorescent	Pur
kleiberit	Kleiberit 704.5	KP 840.4	Pur
	Kleiberit 704.5	KP 840.1	Pur
	Kleiberit 704.5	KP 840.6	Pur
	Kleiberit 704.5	KP 840.5	Pur
	Kleiberit 704.5	KP 840	Pur
	Kleiberit 704.5	KP 831.0	Pur
Jowat	Jowatherm-Reaktant 604.17	Jowat 406.89	Pur
	Jowatherm-Reaktant 604.19	Jowat 406.78	Pur
	Jowatherm-Reaktant 604.15	Jowat 406.75	Pur
	Jowatherm-Reaktant 604.17	Jowat 406.78	Pur
	Jowatherm-Reaktant 604.19	Jowat 406.74	Pur
Henkel	Purmelt QR 5300	Pur	Purmelt 6B-23
	Purmelt QR 5500	Pur	Purmelt 6B 23
	Purmelt QR 5401	Pur	Purmelt 6B-23
	Purmelt QR 5500	Pur	Dorus L 456
	Purmelt QR 5300	Pur	Dorus L 456

HYUNDAI L&C CORPORATION
Name : J.Y. SUNG
Title : DIRECTOR
J.Y. Sung
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Appendix B - WARRANTY PERIOD

1)Warranty Group

Country group
The guarantee period is based on moderate climate zone.

[Group 1]
Iceland, Sweden, Finland, Norway, Denmark, Estonia, Ireland, Latvia, Lithuania, Belarus(White Russia), Belgium, Czech, Great-Britain, Luxembourg, Netherlands, Poland, Germany.

[Group 2]
Slovakia, Austria, Lichtenstein, Slovenia, Switzerland.

[Group 3]
Moldavia, Canada, Hungary, Rumania, Ukraine, France(except for overseas territories and Corsica), Russ. Federation, Serbia.

[Group 4]
Georgia, Bosnia/Herzegovina, Croatia, Korea, Montenegro, San Marino, Vatican, Albania, Andorra, Armenia, Azerbaijan, Bulgaria, Corsica, Macedonia, Monaco, EU part of Turkey(incl. Istanbul), Italy, Portugal(continental), Spain(continental, Baleares), Greece(continental).

[Group 5]
Kazakhstan, Kyrgyzstan, Mongolia, Portugal(Azores and Madeira), Tadzhikistan, Turkmenistan, Uzbekistan, China(continental), AS. Part of Turkey, New Zealand, Japan, Uruguay, Malta, Tunisia, Israel, Lebanon, Algeria, Morocco, Oman, Greek Islands.

[Group 6]
-All African states except for those in country group 5
-All South-American states except for those in country group 5

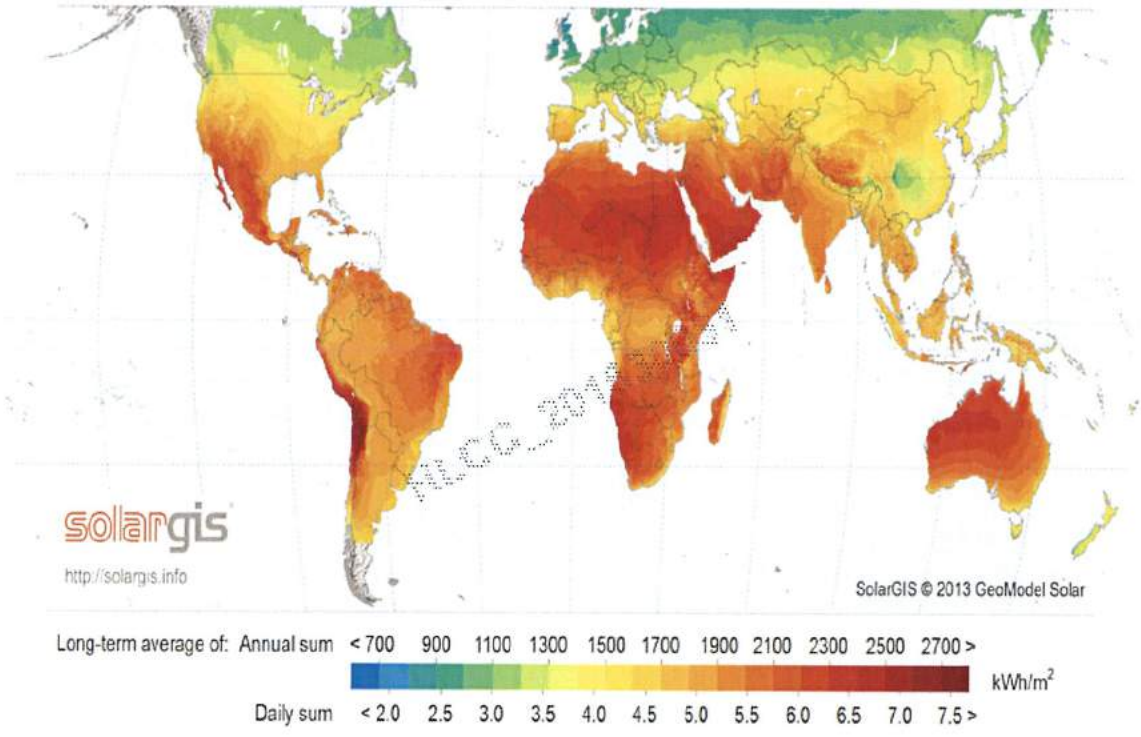
Bangladesh, Myanmar, Afghanistan, Brunei, Cambodia, Costa Rica, Cyprus, Democratic People's Republic of Laos, Malaysia, Maldives, Nicaragua, Palau, Papua-New Guinea, Philippines, Singapore, Solomon Islands, Sri Lanka, Thailand, Vietnam, Bahamas, Belize, Cuba, Darussalam, Guatemala, Mexico, Micronesia, Nauru, Nepal, Spain(Canary Islands), Syria, Tuvalu, Bahrain, Antigua and Barbuda, Barbados, Dominica, Dominican Republic, Dubai, El Salvador, Fiji, French overseas territories, Grenada, Haiti, Honduras India, Indonesia, Iran, Iraq, Jamaica, Jordan, Kiribati, Kuwait, Marshall Islands, Mauritius, Pakistan, Qatar, Samoa ,Seychelles, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, Timor-Leste, United Arab Emirates, Vanuatu, Australia, Saudi Arabia, Yemen, Bhutan, Taiwan, USA.

HYUNDAI L&C CORPORATION
Name : J.Y SUNG
Title : DIRECTOR
J.Y.SUNG / GENERAL MANAGER
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2)Warranty Period

WARRANTY(yrs)	Group					
	1	2	3	4	5	6
Exterior Foil HE	10	10	7.5	5	-	-
Exterior Foil ME	10	10	7.5	5	-	-
Exterior Foil SE	15	15	10	10	10	10
Exterior Foil XE	20	20	20	20	20	20

※SolarGIS-Solar-map-World-map-en



HYUNDAI L&C CORPORATION
J. Y. Sung
J. Y. SUNG / GENERAL MANAGER

Name : J.Y SUNG
Title : DIRECTOR

[AUTHORIZES SIGNATORY]

Appendix C - LIMITED WARRANTY REGISTRATION CARD

Limited Warranty Registration Card No. _____

The HLCC's warranty is provided only to the original purchaser identified below as the Customer and is not transferable. If no Customer is identified below, then no HLCC's warranty exists. By signing below, Customer accepts Product as installed and submits this HLCC's warranty registration.
(Photocopies not accepted)

Address_____

Date_____

Supplied to_____

Installation site_____

Invoice No._____

Customer's Name_____

HLCC Lot. No._____

Quantity_____

Customer Authorized Signature_____

HLCC_20150805

HYUNDAI L&C CORPORATION
Name J.Y SUNG
Title DIRECTOR
J.Y. Sung
[AUTHORIZES SIGNATORY]